

	3		
<b>Act 4: Monopoles</b>			
<b>Project</b>	<b>Entity</b>	<b>Weblink</b>	<b>Credits/caption</b>
<b>Scene 16: Open versus Closed</b>			
<b>SCENE 12: A PROFITABLE BUSINESS</b>			
Chemical reaction: Smoke billows from an EVONIK chemical industry facility in western Germany, after an explosion.	Photo		Explosion of EVONIK chemical industry facility in Chemical Park Marl, Germany, THW, 2012. The explosion led to a global deficincey in Nylon powder for 3D printing.
of 3d printing market, Aquisitions of 3D systems in recent years.Aquisitions of stratasys with two major Mergers - with	Datavisual		Mergers and aquisitions diagram, 3D Systems and Stratasys, 2009-2014
<b>SCENE 13: CLOSING AND OPENING</b>			
Adrian Bowyer of Bath university, father of the desktop printing project RepRap, explains about the project, its opennes and the future intentions	Film	<a href="http://www.youtube.com/watch?v=FUB1WgiAFHg">www.youtube.com/watch?v=FUB1WgiAFHg</a>	Dr. Adrian Bowyer of Bath University shows RepRap Open Source 3D Printer. Josef Davies-Coastes, , 2010
RepRap family tree, 2012	Image		RepRap Family Tree, Watsdesign, 2012
Bre Pettis, CEO of makerbot, explains the great advantages of the open-source model, 2012	Film	<a href="http://www.youtube.com/watch?v=54X28qSbkf4">www.youtube.com/watch?v=54X28qSbkf4</a>	What is Open Source?, MakerBot TV, 2012
Anna Lena Schiller, Notes through a Bre Pettis lecture, 2010	Image		Makerbot - The Robot That Sharing Built, Anna Lena Schiller, (Bre Pettis at re:publica), 2010
Makerbot Replicator 2, a closed source printer, 2013	Object		Makerbot Replicator 2, a closed source 3D printer, 2013
<b>SCENE 14: PROTECTED INVESTMENTS</b>			
Makerbot Patent filing and the community's design	Images		United States Patent Application Publication, MakerBot, 2014

MakerBot filling	Object		Replicator 2 Extruder Upgrade, Whpthomas, 2013 found on thingiverse.com
Formlabs Form1 printer, sued by 3D systems for patent breach	Film	<a href="http://vimeo.com/97770946">http://vimeo.com/97770946</a>	Introducing the Form 1+, Formlabs, 2014
Formlabs Form 1+ printer	Object		Form1+ 3D printer, Formlabs, 2014
Different fillament cassettes	Objects	<a href="#">m</a>	Unstandardized Filament cassettes, Plastic2Print
Makerbot Replicator generation 5, with a Filament cassette of very specific size	Object		Makerbot Replicator generation 5 filament specific diameter cassette, Makerbot.
Makerbot Replicator generation 5, with a Filament cassette of very specific size	Photo		Makerbot Replicator generation 5 3D printer, requiring specific diameter cassette, 2013.
CUBE printer filament cartridge, 3D systems. Specific cartridge has to be used with the printer	object		CUBE specific printer filament cartridge, 3D systems.
3D systems wins lawsuit filed by DSM for unfair trade by using RFID tags in their supplied materials	Documents	<a href="http://edu/sites/zh/sites/default/files/2013-12/98.pdf">edu/sites/zh/sites/default/files/2013-12/98.pdf</a>	DSM desotech inc. versus 3D systems corporation. United states court of appeals verdict, regrading the use of RFID tags of 3D systems filament bottles, 2013
Makerbot Verified files on Thingiverse website	website	<a href="http://com/watch?v=5JwwLi">com/watch?v=5JwwLi</a>	into MakerBot format files, 2014 found on thingiverse.com
RedEye On Demand - Tour Our Facility, Stratasys 3D printing center	Film	<a href="https://www.youtube.com/watch?v=AhuQPif90oU">https://www.youtube.com/watch?v=AhuQPif90oU</a>	RedEye On Demand - Tour Our Facility, Stratasys FDM, 2011
The Future of Customized Fab-Grade 3D Printing, 3D Systems, 2014	Film	<a href="https://www.youtube.com/watch?v=UFb3TkC7OMo">https://www.youtube.com/watch?v=UFb3TkC7OMo</a>	The Future of Customized Fab-Grade 3D Printing, 3D Systems, 2014
New Matter printer project, designs are sent to the printer like text messages, making a printer that does not ask for knowledge, and offers in a way, just a shortening shipping distance.	Film	<a href="https://www.youtube.com/watch?v=CGfLxA Cv3Qs">https://www.youtube.com/watch?v=CGfLxA Cv3Qs</a>	Introducing the New Matter MOD-t 3D Printer, New Matter, 2014

<b>SCENE 15: AND YET...</b>			
Russ's Filament extruder, documented maker experiment in home manufacturing of material, approx. 180min	Film	<a href="https://www.youtube.com/watch?v=e3vJhy6mGIA">https://www.youtube.com/watch?v=e3vJhy6mGIA</a>	#12 Russ's Filament Extruder: New Plastic Trial in printer, Geeket, 2014
Hugh Lyman, an 83 yr. old retiree, has won the 40,000\$ prize competition for the design of a Filament extruder. His open-source design has been the base for many makers creating their own extruders at home. He is constantly developing and improving his design.	Film	<a href="https://www.youtube.com/watch?v=o4F3e6K5Hxk">https://www.youtube.com/watch?v=o4F3e6K5Hxk</a>	Lyman Filament Extruder V4, Hugh Lyman, 2014
JEFFDM, Lyman's filament extruder with steel sprockets	Film	<a href="https://www.youtube.com/watch?v=GzveoZSrlk0">com/watch?v=GzveoZSrlk0</a>	Lyman's Filament Extruder with Steel Sprockets, JeffDM, 2013
X3ruder, Mirox3mbg	Film	<a href="https://www.youtube.com/watch?v=fFSQqvtYaDw">com/watch?v=fFSQqvtYaDw</a>	12vdc OS RepRap filament extruder, X3ruder, 2014
Filabot Filament extruder	Sketches		Filabot Filament Extruder, Filabot, 2012
Filastruder Filament extruder	Image		Filastruder Filament Extruder, Filastruder, 2013.
100% Recycled fillament of Perpetual Plastic Project	Objects		100% Recycled Fillament, Perpetual Plastic Project, 2014
Filamaker, a system that recycles material and turn into filament	Film	<a href="https://www.youtube.com/watch?v=MHBvmQ4ecH0">com/watch?v=MHBvmQ4ecH0</a>	FilaMaker plastic recycler and filament extruder, Marcus Thymark, 2013